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Applicant:	Cynthia C. Bamdad et al.
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CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8(a)

The undersigned hereby certifies that this document is being placed in the United States mail with first-class postage attached, addressed to Commissioner for Patents, Washington, D.C. 20231, on the 12th day of April, 2002.

Jennifer A. Jones

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Sir:

PRELIMINARY AMENDMENT

This Amendment is in response to the Notice to File Missing Parts of Nonprovisional Application dated February 12, 2002. Please amend the application as follows:

In the Specification:

Please amend the specification as shown below.

Please insert the following text:

At page 44, line 23 reading "CGGattAgAagcCgCCGAG and the GST binds to a glutathione moiety on the particle" please insert "(SEQ ID NO:1)" so that line 23 reads "CGGattAgAagcCgCCGAG (SEQ ID NO:1) and the GST binds to a glutathione moiety on the particle."

Please replace the following section as directed below. Marked up versions of the replacement section showing all the changes relative to the previous version are attached hereto. The attached pages are captioned "MARKED-UP SPECIFICATION."

On page 7-8, replace the "Brief Description of the Drawings" section with the following:

Brief Description of the Drawings

Fig. 1 illustrates schematically an embodiment of a colloid particle 140 adapted to bind essentially any chemical or biological species and also to bind an oligonucleotide identifier.

Fig. 2 illustrates schematically a chip including a plurality of spatially-addressable regions, each region having a chemical or biological species (putative binding species) and an oligonucleotide identifier.

Fig. 3 illustrates, schematically, another embodiment showing a chip to which one or more chemical or biological species are fastened.

Fig. 4 illustrates an oligonucleotide identifier [e.g., cgatccttttactgc (SEQ ID NO:2)] of the invention adapted to be fastened to a surface, specifically via a self-assembled monolayer-forming species.

Fig. 5 illustrates identification of the polyamino acid tag [e.g., gatccttttactgc (SEQ ID NO:4)], of Figures 4-8 with a complementary oligonucleotide [e.g., ctaggaaaaa (SEQ ID NO:3)] following separation from the surface of the colloid particle to which it had been fastened.

Fig. 6 illustrates a surface of a colloid particle to which is fastened an oligonucleotide identifier [e.g., cgatccttttactgc (SEQ ID NO:2)] (Fig. 4) and a biological binding partner.

Fig. 7 illustrates biological binding between first and second biological binding partners attached to first and second colloid particles, respectively.

Fig. 8 illustrates separation of the oligonucleotide identifier [e.g., cgatccttttactgc (SEQ ID NO:2)] or [e.g., gatccttttactgc (SEQ ID NO:4)] of Fig. 6 from the surface of the colloid particle to which it had been fastened.

Fig. 9 illustrates an oligonucleotide identifier and a biological binding partner, each fastened to a surface of a colloid particle.

Fig. 10 illustrates two colloid particles, each carrying a biological species that biologically binds to the species of the other colloid particle, and each carrying a oligonucleotide identifier.

Fig. 11 illustrates binding of an interaction hybridization identifier [e.g., tgactgtcatcg (SEQ ID NO:7)] to the combination of the oligonucleotide identifiers bound, respectively, to the

colloid particles of Fig. 10. Non-complementary sequences [e.g., caccgtattagt (SEQ ID NO:5)] and [e.g., gtacgccgttgt (SEQ ID NO:6)] do not bind.

Fig. 12 illustrates de-activating any non-hybridized oligonucleotide.

Fig. 13 illustrates the result of the step of Fig. 12 with the hybridization identifier [e.g., tgactgtcatcg (SEQ ID NO:7)] remaining.

Fig. 14 illustrates denaturization of the interaction hybridization identifier [e.g., tgactgtcatcg (SEQ ID NO:7)] of Figures 11-13;

Fig. 15 illustrates identification of chimeric oligo solution [e.g., actgacagtagc (SEQ ID NO:8)] and thereby identification of the oligonucleotide identifiers of Figures 10-13.

Fig. 16 shows ACV demonstration of enhanced electronic communication across a self-assembled monolayer, and redox signaling of protein immobilization to a cell surface, against a control.

Fig. 17 shows ACV analysis of protein/protein interaction as measured by binding of a colloid to a magnetic bead.

Fig. 18 illustrates how two binding partners can be detected through magnetic recruitment.

Fig. 19 illustrates a multiplexing apparatus for applying and releasing a magnetic force at multiple locations on a continuous surface.

REMARKS

This amendment is fully supported by the specification and the drawings. The specification has been amended to comply with 37 C.F.R. 1.821-1.825, as requested by the Patent and Trademark Office.

No new matter has been added.

Applicants respectfully request the Examiner enter the Sequence Listing attached hereto.

CONCLUSION

In view of the foregoing Amendments, this application should now be in condition for allowance. A notice to this effect is respectfully requested. If the Examiner believes, after this

amendment, that the application is not in condition for allowance, the Examiner is requested to call the Applicants' attorney at the telephone number listed below.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicants hereby request any necessary extension of time. If there is a fee occasioned by this response, including an extension fee that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 23/2825.

Respectfully submitted

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